- Adaptive Grid Generator, Grid Cell Volume Control with an. 35:209
- Algorithmic Models, Comparison Theorems for, 40:179
- Approximation Theory, An Application of, to the Numerical Solution of a Fredholm Equation with a Mild Singularity, 37:57
- Asymptotics, A Numerical Evaluation of Very Oscillatory Infinite Integrals by, 40:117
- Automatic Evaluation of Derivatives, An ADA Library for 35:103
- Banach Spaces, Generalized, The Secant Method in, 39:111
- Biochemical Chiral Selection in the Presence of Instabilities, Chaos, and Noise, 38:1
- Bounding Zeros of Analytic Functions, A Ball Newton Point Algorithm for, 36:1
- Cahn-Hilliard Model of Solidification, Computation on the, 40:55
- Capacitated Facility Location Problems, Large Scale, Approximate Solutions to, 39:159
- Constrained Global Optimization, The Filled Function Transformations for, 39:1
- Cost Allocation: The Traveling Salesman, Binpacking, and the Knapsack, 35:191
- Convolution Integral and Fredholm Integral Equations via Double Fourier Series, Solutions of, 40:215
- Cubic Spline Interpolation, End Conditions for, 40:105
- Damped Wave Equation with a Smoothing Property, Error Estimates for the Semidiscrete Finite-Element Approximation of a, 35:243
- Difference Equations of Volterra Type, Stability Results for, 36:51
- Difference Equations, Sharp Conditions for Existence of Nontrivial Invariant Cones of Nonnegative Initial Values of, 36:89
- Differential Equations, The Boundary-Condition Paradox: A Limit to the Universality of, 37:67
- Diffusion Equation, Two-Dimensional, A Comparison of Vectorized Methods for Solving the, 40:77
- Dynamic Oligopoly: Models with Incomplete Information, 38:161

- Efficient Population Behavior, General Representation Theorems for, 36:173
- Epidemics, Cellular Automation Modeling of, 40:41
- Eutrophication, Optimal Policies in a Nonlinear Bioeconomic Model of, 35:95
- Experimental Data, Sensitivity Analysis using New Coefficients for, 37:9
- Filtering Theory, On the Stochastic Differential Equations of, 37:185
- Fourth-Order Nonlinear Boundary-Value Problem and an Integral-Type Sign Condition, 35:231
- Function, Modular Parts of a, 36:63
- Fusion Reactors, Variational Analysis of a Plasma-Arc Armature inside a Railgun Solid-Hydrogen-Pellet Accelerator for Fueling, 37:37
- Global Optimization, The Globally Convexized Filled Functions for, 35:131
- Graphing Implicit Functions f(x, y) = 0, 39:199
- Grid Generation with Line-Spacing Control, A Multigrid Method for, 40:125
- Hierarchical Power, Algorithms for, 39:21
- Hydrology, Random Evolution Equations in, 38:201
- Implicit Equations in Two Variables, A Neighborhood Magnification Method for Solving, 27,07
- Integral Equations, Fredholm and Singular, The Conditioning of Some Projection Methods for, 40:165
- Integral Equations, Linear Singular, On Approximation Solution of, 36:147
- Interval Newton Method: Hansen-Greenberg Approach—Some Procedural Improvements, 35:263
- Irrational Definite Integrals, Applications of Complex Variable Residue Theory to the Evaluation Solution of, 39:145, 177
- Irrational Definite Sine Integrals, Evaluation Using Residue Theory, 36:163
- Jordan Invariant Subspaces via Algebraic Generalized Inverse, 38:75

Linear Programming and Simple Associative Memories, 40:203

Lipid Membrane, An Application of Cellular Automata to Model a, 39:49

Manifold Subbotin Spline, 40:225

Market Dynamics Based on the Internal Model Principle, a Possible Interpretation of, 37:1

Markov-Renewal Extension of a Deterministic State-Variable Model of the Transport and Fate of a Toxic Chemical in the Environment, 35:219

Matrix Formulation, Solution of Maxwell's Equations by, 40:239

Measles Epidemic, A Mathematical Analysis and Simulation of a Localized, 39:61

Multigrid F-Cycle, On the, 37:19

Multigrid Stokes Solver, Analysis of a, 35:291

Nested Cylindrical Domain: The Continuous Solution, Observability of the Electropotential on a, 39:207

Nested Cylindrical Domain: Numerical Solution, Observability of the Electropotential on a, 39:245

Nonequidistant Engquist-Osher Scheme, Some Improvements of the, 40:147

Nonlinear Equations, Finding More and More Solutions of a System of, 36:15

Nonlinear Impulsive Integrodifferential Equations, Boundary Value Problems for, 36:31

Nonlinear Klein-Gordon Equation, Analysis of Four Numerical Schemes for a, 35:61

Nonlinear Periodic Boundary Value Problems, Extremal Solutions of Second Order, 40:135

Nonlinear Problems, Continuous Finite Element Methods Which Preserve Energy Properties for, 39:271

Nonlinearly Constrained Discrete-Time Optimal-Control Problems, 38:227

Nuclear Medicine, The Optical Principles of Coincidence Counting in, 40:1

Nuclear-Medicine Tomography, Organ Characterization with, 35:159

O(n²) Shortest Chain Algorithm, A New, 37:111

Parallel Computers, A Note on Reducing Communication Costs in Explicit Time Stepping Methods on, 39:191 Periodic Volterra Representation, Fast Error-Free Algorithm for the Determination of Kernels of the, 38:87

Perturbation Problems, Singular, A Numerical Integration Method for Solving, 37:83

Perturbation Problems, Singular, Numerical Techniques for a Class of, 35:1

Piecewise Linear Transformations, Invariant Measures for, 39:123

Point-to-Set Maps, On the Convergence of Nonstationary Algorithms Modeled by, 39:107

Polynomial Coefficients, Sums of Exponentials with, 40:33

Population Dynamics Control in Regard to Minimizing the Time Necessary for the Regeneration of a Biomass Taken Away from the Population, 39:37

Porous Media, The Steady Motion of an Incompressible Dusty Gas in, 37:149

Prime Number Grid Scheme to Approximate Function Spaces with Their Low Dimensional Subspaces, 40:233

Projector Preconditioning and Domain Decomposition Methods, 37:75

Rational and Deficient Systems, The Continuation Method for, 37:121

Semimartingale Stochastic Differential Equations, Optimal Nonparametric Estimation for Some, 37:169

Simultaneous-Equations, Weighted Regression, and Noise-in-Variables Models, A Comparison of, 40:187

Slope Arithmetic, On Interval Enclosures Using, 39:89

Spatial Resolution, A New Phenomenon in Medical Imaging: Effects of Radiation Coherence on, 40:11

Spatially Distributed Stocks, Deterministic Evolution, and Ecological Balance, 36:113

Stability of the Biomass—Carbon Dioxide Equilibrium in the Atmosphere: Mathematical Model, 35:125

Stochastic Bifurcation, 38:101

Stochastic Calculus as a Tool in Survival Analysis: A Review, 38:23

Stochastic Differential Equations in Finance, 37:131

Stochastic Differential Equations in Mathematical Demography: A Review, 38:7

- Stochastic Neuronal Models, Inference for, 38:51
- Stokes Problem: An Accelerations-Pressure Formulation, A Mixed Finite Element Method for the, 36:135
- Two-Point Boundary-Value Problems, A Noniterative Transformation Method Applied to, 39:79
- Two-Point Boundary-Value Problems, On Dichotomy and Well-Conditioning in, 38:179
- Unconstrained Global Optimization Using Strict Complementary Slackness, 36:75
- Vector Function, A Computational Method for Finding All the Roots of a, 35:13
- Voigt Function, An Algorithm for the Numerical Computation of the, 35:277